

ENGINEERING SCIENCE
AND MANAGEMENT
WAR TRAINING

JUN 29 1944

Federal Security Agency
U. S. OFFICE OF EDUCATION
Washington

U. S. OFFICE OF EDUCATION

ENGINEERING, SCIENCE, AND MANAGEMENT WAR TRAINING

1943-44

PLAN
FOR SHORT ENGINEERING, SCIENCE, AND MANAGEMENT COURSES
OF COLLEGE GRADE

This Plan for short engineering, science, and management courses of college grade is to be submitted in duplicate by the Institution named below in accordance with the provisions of the Labor-Federal Security Appropriation Act, 1944, to the Director of Engineering, Science, and Management War Training of the U. S. Office of Education, Washington, D. C., and is to be signed by an official of the Institution (preferably the President) who is duly authorized to sign contracts for the Institution. If this official's title does not clearly indicate his authority to sign contracts for the Institution, this Plan should be accompanied by a statement from the President or Secretary evidencing such authority.

Name of Institution Lowell Textile Institute

Address Lowell Massachusetts
(City) (State)

Institutional Representative (see Provision "16" below):

Name A. Edwin Wells Title Professor

Institutional Official authorized to receive and receipt for Federal funds:

Name Charles H. Eames Title President

Institutional Official authorized to sign proposals:

Name Julius E. Warren Title Commissioner of Education

Plan of Lowell Textile Institute
(Name of Institution)

I. DEFINITIONS

The terms given below, as used in this Plan, shall have meanings as follows:

- (a) "Institution" means the college or university named above.
- (b) "Commissioner" means the United States Commissioner of Education
- (c) "Director" means the Director of Engineering, Science, and Management War Training of the U. S. Office of Education, acting under authority determined and delegated by the Commissioner.
- (d) "Act" means that part of the Labor-Federal Security Appropriation Act, 1944 (Public Law 135, 78th Congress, 1st Session, approved July 12, 1943), included under the headings "Title II -- Federal Security Agency", subheading "Education and Training, Defense Workers, (National Defense)" and "Title VIII -- General Provisions."
- (e) "Regulations" means the "Regulations Governing the Education and Training of War Workers" promulgated by the Commissioner in pursuance of the Act and approved by the President of the United States.
- (f) "Proposals" means all preliminary and final proposals for short courses of college grade to be given under the Act, proposals for working fund, proposals for regional coordination, proposals for administrative budgets, and revisions of all such proposals, which have already been submitted or which may hereafter be submitted by the Institution and approved by the Commissioner or by the Director if and when designated by the Commissioner to act for him.
- (g) "Plan" means this Plan for Short Engineering, Science, and Management Courses of College Grade. When the Plan has been approved by the Commissioner or by the Director if and when designated by the Commissioner to act for him, it, together with the approved proposals, and other supplementary documents of approval under properly delegated authority, constitutes the "Approved Plan" of the Institution referred to in subdivision (2) of the Act.

Plan of Lowell Textile Institute
(Name of Institution)

II. ADMINISTRATION OF PLAN

The Institution hereby submits this Plan to the Director for approval and agrees that if said Plan shall be approved the Institution will administer its Plan in accordance with the pertinent provisions of the Act and the Regulations, and with the General Provisions hereinafter contained.

III. GENERAL PROVISIONS

1. Eligibility -- The Institution is a degree-granting college or university whose educational property is exempt from taxation by virtue of the provisions of the special or general law under which it is organized and operates, or a public degree-granting educational institution, and has authority to receive and administer Federal funds.

During the academic year 1940-41 or thereafter, in recognition of satisfactory completion of a curriculum normally requiring four years or longer beyond high-school graduation preparing for a professional career, the Institution granted degrees with majors, or fields of specialization, as shown in the table below, with not fewer than 18 semester hours (or equivalent) of Junior and Senior-year credit in the major field. The field of "production supervision" as used therein is understood to include industrial management, personnel management, traffic management, procurement and stores; and accounting, statistics, and office management closely related to production. Calculus was required as a prerequisite for a substantial part of the major work in physics.

Field of specialization	Number of degrees granted					
	In 1940-41			After 1940-41 Specify Year		
	Bachelor's	Master's	Doctor's	Bachelor's	Master's	Doctor's
Engineering	17	5		23 '41-'42 18 '42-'43 10 '43-'44	3 '41-'42	
Chemistry	14	2		28 '41-'42 20 '42-'43 8 '43-'44	4 '42-'43 1 '43-'44	
Physics						
Production Supervision						

Plan of Lowell Textile Institute
(Name of Institution)

2. Courses -- All courses conducted by the Institution under its Plan will be short courses of college grade designed to meet the shortage of engineers, chemists, physicists, or production supervisors in fields essential to the national war effort. All courses will be of types approved by the Chairman of the War Manpower Commission. Each course will be conducted in accordance with the pertinent provisions of the Act, the Regulations, the general instructions issued by the Commissioner or the Director, and the terms of the proposal and signed authorization for that course. The Institution may utilize the facilities of other public or private agencies and institutions, but in no event will any course be given under its Plan for which the Institution does not assume full responsibility for the scope, content, and standards of instruction, and the actual direction and control of activities under its Plan in all important substantive and procedural aspects. The Institution will determine what necessary courses it is prepared to offer under its Plan, and will propose them from time to time to the Director for approval.

3. Regional Coordination -- To the extent and in the manner prescribed by the Director, the Institution will investigate college-grade war training needs within its region and coordinate its training with that of other institutions and with these needs. The estimated cost of such activities will be included in the proposals.

4. Personnel -- The Institution will assume full responsibility for the selection of war training personnel and determination of their compensation. Such compensation will conform with regular institutional salaries and established rates in the community. Total teaching, supervisory, and other duties of such personnel will not exceed those permitted by good academic standards except in special emergencies, and then only for short periods.

5. Trainees -- Trainees under its Plan will be selected by the Institution on the basis of existing and anticipated need for war workers in occupations essential to the national war effort, their qualifications for pursuing the courses to satisfactory completion, and their subsequent employability in industry. High-school graduation or its equivalent will be a minimum prerequisite. All trainees will be of legally employable age, or will become of such age before the time of completion of the course in which they are enrolled.

No trainee will be discriminated against because of sex, race, creed, color, or national origin, but the Institution shall not be required to admit to courses under its Plan any person excluded from its student body by existing laws, rules, or regulations. It will cooperate in carrying out the following provision of the Act, " * * * where separate schools are required by law for separate population groups, to the extent needed for trainees of each such group, equitable provision shall be made for facilities and training of like quality."

Plan of Lowell Textile Institute
(Name of Institution)

6. Proposals and Budgets -- The Institution will prepare and submit to the Director, in accordance with such forms and procedures as he may from time to time prescribe, a proposal for an administrative budget to cover the general administrative costs of its proposed program for such period of time as the Director shall prescribe.

For each course the Institution wishes to offer under its Plan, it will prepare and submit to the Director a preliminary proposal in accordance with such forms and procedures as he may from time to time prescribe. When this preliminary proposal is approved the Institution will receive an authorization to complete its arrangements and begin instruction, provided the initial enrollment is not less than the minimum and is not more than the maximum authorized and subject to any other conditions stated in the approval. No course will be organized or instruction begun under its Plan without the prior approval of the Director.

One week after the beginning of instruction in the last section of a course, the Institution will submit to the Director a final proposal in accordance with such forms and procedures as he may from time to time prescribe. Each final proposal will include a detailed operating budget based on the enrollment in the course as of the end of the first week of instruction.

The Institution may prepare and submit to the Director in accordance with such forms and procedures as he may from time to time prescribe proposals for working funds to permit the Institution to conduct courses under its Plan without drawing on regular institutional funds.

The Institution will so plan its requests for funds that at the end of the fiscal year, as nearly as may be possible, the total funds requested by the Institution under its proposals for working funds and all its final proposals shall not exceed the cost of conducting approved courses.

If any staff member of the Institution is to serve as a Regional Adviser or a member of the National Advisory Committee under its Plan, the Institution will submit to the Director, in accordance with such forms and procedures as he may prescribe, a proposal for regional coordination which will include a budget of the estimated cost of expenditures for such coordination.

All proposals will be formulated with the view to the most effective utilization of institutional facilities in carrying out the national war training program.

Final proposals, proposals for working funds, and proposals for regional coordination will be signed by duly authorized officers on behalf of the Institution and, when approved, they shall serve as a basis for certification to the Secretary of the Treasury for immediate payment to the Institution of the amounts approved therein. Whenever required by the Director or desired by the Institution, the Institution will submit revisions of its budgets to the Director for approval.

Plan of Lowell Textile Institute
(Name of Institution)

7. Discontinuance or Modification of a Course -- Approval of any proposal shall be subject to the further action of the Director who may require the course to be discontinued subject to such reimbursement for expenditures made or incurred by the Institution as he may determine to be equitable, or provide for the continuance thereof subject to such conditions as he may deem essential to effectuate the purposes of the national program. The Director may likewise make such investigation, examination, and inspection thereof and of the conditions under which courses are given as may be expedient or necessary, and may require the maintenance of such standards and the adoption of such procedures as may serve to assure effective use of Federal funds.

8. Expenditures for Space and Equipment -- Not to exceed 20 per centum of the total expenditures of the Institution under its Plan will be for purchase and rental of additional equipment, the alteration of space, and leasing of additional space. No equipment will be purchased or rented and no space will be altered or leased from funds paid to the Institution under its Plan except such as is necessary to carry out its Plan and is provided for in the proposals. Space leased will not be on the property of the Institution.

9. Title to Equipment -- Any equipment purchased by the Institution under its Plan shall be held available at all times for use in war training courses and shall be subject to disposition by the Director for use elsewhere in the program. For these purposes title to equipment shall be held by the Institution or in the name of an agency or individual designee approved by the Director.

10. Expenditure of Funds -- All funds received by the Institution under its Plan will be held by the Institution's official authorized to receive and receipt for Federal funds, and expended in accordance with the regulations of the Institution which are applicable to its other funds; provided, however, that the Director may make such rules with respect to the custody and disposition of such funds as he may deem reasonably necessary to safeguard their availability and use in the war training program. Expenditure of said funds will be solely for such purposes as are authorized by the Act and the Regulations and in accordance with the provisions of its Plan. In no event will the total amount expended by the Institution under its Plan exceed the amount approved by the Director. At the termination of the program, the Institution will return any unexpended and unencumbered balance, by drawing its check to the order of the Treasurer of the United States for the amount of said balance, and sending said check to the Director for transmittal to the United States Treasury. If any part of the funds paid to the Institution under its Plan are misappropriated or lost, the Institution will make good the loss.

No part of the funds received by the Institution under its Plan will be used to pay the salary or wages of any person who advocates, or who is a member of an organization that advocates, the overthrow of the Government of the United States by force or violence: Provided, that for the purposes of this paragraph an affidavit shall be considered prima facie evidence that the person making the affidavit does not advocate, and is not a member of an organization that advocates, the overthrow of the Government of the United States by force or violence.

Plan of Lowell Textile Institute
(Name of Institution)

11. Tuition and Fees -- No tuition or other fees will be required of trainees. Trainees may, however, be required to make customary deposits to assure proper use and return of institutional property.

12. Keeping of Accounts -- The Institution will maintain such separate accounts of funds received and expended under its Plan as will serve to permit an accurate and expeditious determination to be made at any time of the status of the Federal grant, including the disposition of all moneys received and the nature and amount of all charges claimed to lie against the Federal authorization. The accounts will be supported by separate requisitions and vouchers properly approved for all charges.

To provide reimbursement for costs that cannot reasonably be accounted for separately the Institution may, subject to prior approval by the Director, charge to the cost of courses a percentage of definitely ascertainable costs. Any such percentage and the basis for application will be justified by such evidence as the Director may require.

The Institution may, at its option, keep separate income or separate expenditure accounts for each course. A separate bank account shall not be required.

13. Reports -- The Institution will make such reports on courses offered under its Plan in such form and containing such information as the Director may from time to time require, and will comply with such provisions as he may from time to time find necessary to assure the correctness and verification of such reports. Reports of the cost of courses and of additional space and equipment, subject to audit and verification, and detailed statistical statements of the enrollments, training, transfers, placements, and other details of the Institution's activities under its Plan will be furnished monthly or at such other times and subject to such supplementation as the Director may require, and shall be sufficient to enable the Commissioner to transmit to Congress quarterly reports of the war training program as required by the provisions of the Act.

14. Final Report and Audit -- Within ninety days after the termination of the last course conducted under its Plan, and in any event not later than December 31, 1944, the Institution will submit to the Director, in such form as he may require, a final report of the total amount expended under its Plan and of expenditures for additional space and equipment, subject to audit and verification; which report will be signed by the officer designated by the Institution to receive Federal funds and by the chief administrative officer of the Institution. Immediately after the account has been audited, this final report will be supported by a certificate of the certified public accountant or State auditor who audits the accounts of the Institution, certifying to the accuracy of the final report and compliance by the Institution with the provisions of its Plan in respect to expenditures.

Plan of Lowell Textile Institute
(Name of Institution)

15. National Advisory Committee and Regional Advisers -- When questions of policy arise in carrying out its Plan the Institution may consult with and secure the advice of the National Advisory Committee on Engineering, Science, and Management War Training. The Institution will also cooperate with the Regional Adviser designated by the Commissioner for the region in which it is located, to assure that the program will operate with maximum coordination and effectiveness to the national war effort.

16. Institutional Representative -- The person designated as "Institutional Representative" on page 1 of this Plan will be responsible for maintaining the standards and policies of the Institution, also the standards and policies of the U. S. Office of Education, in his administration of the Institution's ESMWT program. He will be responsible for clearing and coordinating all matters pertaining to activities of the Institution under its Plan, except duties of regional coordination assigned to a Regional Adviser or a National Advisory Committee member located at the Institution, and except those duties properly assigned to the person authorized on page 1 of the Plan to receive Federal funds. Among other things, he will be authorized to conduct negotiations with the Director, to assume responsibility for making reports, and to provide representation of the Institution on regional committees. He will see that all proposals, budgets, and reports are executed properly and sent promptly to the Director. His signature on proposals will indicate that he recommends their acceptance and approval as consistent with the standards and policies of the Institution and of the U. S. Office of Education. He will convey promptly to the persons who may be concerned, information sent to him by the Commissioner or the Director relating to the ESMWT program at the Institution.

Submitted for approval on this 26th day of June, 19 44.

Lowell Textile Institute

(Name of Institution)

Charles H. Elam

President, Lowell Textile Institute

Signed: *Julius E. Darny*
(Duly Authorized Officer)

Commissioner of Education

(Title)

June 26, 1944
(Date)

Approved as to courses for Engineers,
Chemists, Physicists, Production Supervisors:

(Director of Engineering, Science, and
Management War Training)

(Date)